CLAIMS

1. A charge transport compound having the following formula:

(R-Q)n-Y

where R is an (N,N-disubstituted)arylamine group;

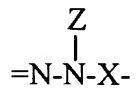
Q comprises an aromatic hydrazone linking group;

Y comprises a bridging group between R-Q- groups; and

n is an integer between 2 and 6.

2. The charge transport compound of claim 1 wherein Y is a methylene group, a bond, S, or O and n is 2.

3. The charge transport compound of claim 1 wherein Q has the formula:



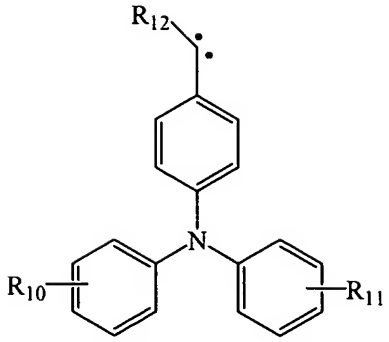
where Z is an aryl group; and X is a linking group comprising $-(CH_2)_m-$, where m is an integer between 1 and 20, inclusive, and one or more of the methylene groups is optionally replaced by an oxygen atom, a carbonyl group, a $-NR_6$ group, a CHR_7 group, or a CR_8R_9 group where R_6 , R_7, R_8, and R_9 are, independently, H, an alkyl group, or aryl group.

4. The charge transport compound of claim 3 wherein Z comprises a phenyl group.

5. The charge transport compound of claim 3 wherein X is $-(CH_2)_m-$ where m is an integer between 1 and 20.

6. The charge transport compound of claim 1 wherein the (N,N-disubstituted)arylamine group comprises a triarylamine group.

7. The compound of claim 6 wherein the triarylamine group has the formula:



where R_{10} , R_{11}, and R_{12} are, independently, H, an alkyl group, or aryl group.

8. The charge transport compound of claim 1 wherein Y comprises a bond, nitrogen atom, oxygen atom, sulfur atom, a branched or linear $-(CH_2)_p-$ group where p is an integer between 1 and 10, a cycloalkyl group, or a cyclosiloxyl group.

9. An organic photoreceptor comprising:

(a) a charge transport compound having the formula

(R-Q)n-Y

where R is an (N,N-disubstituted)arylamine group;

Q comprises an aromatic hydrazone linking group;

Y comprises a bridging group between R-Q- groups; and

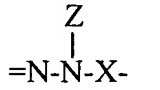
n is an integer between 2 and 6;

(b) a charge generating compound; and

(c) an electrically conductive substrate on which the charge transport compound and the charge generating compound are located.

10. The organic photoreceptor of claim 9 wherein Y is a methylene group, a bond, S, or O and n is 2;

11. The organic photoreceptor of claim 9 wherein Q is represented by the formula:



where Z is an aryl group; and X is a linking group comprising $-(CH_2)_m-$, where m is an integer between 1 and 20, inclusive, and one or more of the methylene groups is optionally

replaced by an oxygen atom, a carbonyl group, a -NR_6 group, a CHR_7 group, or a CR_8R_9 group where R_6 , R_7, R_8, and R_9 are, independently, H, an alkyl group, or aryl group.

12. The organic photoreceptor of claim 9 wherein Z comprises a phenyl group.

13. The organic photoreceptor of claim 9 wherein Y comprises a bond, nitrogen atom, oxygen atom, sulfur atom, a branched or linear -$(CH_2)_p$- group where p is an integer between 1 and 10, a cycloalkyl group, or a cyclosiloxyl group.

14. The organic photoreceptor of claim 9 wherein said organic photoreceptor is in the form of a flexible belt or a rigid drum.

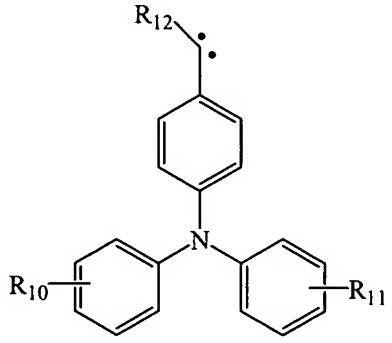
15. The organic photoreceptor of claim 9 comprising:

(a) a charge transport layer comprising said charge transport compound and a polymeric binder; and

(b) a charge generating layer comprising said charge generating compound and a polymeric binder.

16. The organic photoreceptor of claim 9 wherein the (N,N-disubstituted)arylamine group comprises a triarylamine group.

17. The organic photoreceptor of claim 16 wherein the triarylamine group has the formula:



where R_{10} , R_{11}, and R_{12} are, independently, H, an alkyl group, or aryl group.

18. An electrophotographic imaging apparatus comprising:

(a) a plurality of support rollers; and

(b) an organic photoreceptor in the form of a flexible belt threaded around said support rollers, said organic photoreceptor comprising:

(i) a charge transport compound having the formula

(R-Q)n-Y

where R is an (N,N-disubstituted)arylamine group;

Q comprises an aromatic hydrazone linking group;

Y comprises a bridging group between R-Q- groups; and

n is an integer between 2 and 6;

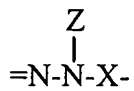
(ii) a charge generating compound; and

(iii) an electrically conductive substrate.

19. The electrophotographic imaging apparatus of claim 18 wherein Y is a methylene group, a bond, O, or S and n is 2.

20. The electrophotographic imaging apparatus of claim 18 wherein Z comprises a phenyl group.

21. The electrophotographic imaging apparatus of claim 18 wherein Q is represented by the formula:



where Z is an aryl group; and X is a linking group comprising $-(CH_2)_m-$, where m is an integer between 1 and 20, inclusive, and one or more of the methylene groups is optionally replaced by an oxygen atom, a carbonyl group, a $-NR_6$ group, a CHR_7 group, or a CR_8R_9 group where R_6 , R_7, R_8, and R_9 are, independently, H, an alkyl group, or aryl group.

22. The electrophotographic imaging apparatus of claim 18 wherein Y comprises a bond, nitrogen atom, oxygen atom, sulfur atom, a branched or linear $-(CH_2)_p-$ group where p is an integer between 1 and 10, a cycloalkyl group, or a cyclosiloxyl group.

23. The electrophotographic imaging apparatus of claim 17 wherein the (N,N-disubstituted)arylamine group comprises a triarylamine group.

24. An electrophotographic imaging process comprising:

(a) applying an electrical charge to a surface of an organic photoreceptor comprising:

(i) a charge transport compound having the formula

(R-Q)n-Y

where R is an (N,N-disubstituted)arylamine group;

Q comprises an aromatic hydrazone linking group;

Y comprises a bridging group between R-Q- groups where Y comprises a bond, nitrogen atom, oxygen atom, sulfur atom, a branched or linear $-(CH_2)_p-$ group where p is an integer between 0 and 10, a cycloalkyl group, or a cyclosiloxyl group; and

n is an integer between 2 and 6;

(ii) a charge generating compound; and

(iii) an electrically conductive substrate;

(b) imagewise exposing said surface of said organic photoreceptor to radiation to dissipate charge in selected areas and thereby form a pattern of charged and uncharged areas on said surface;

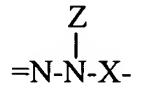
(c) contacting said surface with a toner comprising colorant particles; and

(d) transferring said toned image to a substrate.

25. The electrophotographic imaging process of claim 24 wherein Y is a methylene group, a bond, O, or S and n is 2.

26. The electrophotographic imaging process of claim 23 wherein Z comprises a phenyl group.

27. The electrophotographic imaging process of claim 23 wherein Q is represented by the formula of the formula:



where Z is an aryl group; and X is a linking group comprising $-(CH_2)_m-$, where m is an integer between 0 and 20, inclusive, and one or more of the methylene groups is optionally replaced by an oxygen atom, a carbonyl group, a $-NR_6$ group, a CHR_7 group, or a CR_8R_9 group where R_6 , R_7, R_8, and R_9 are, independently, H, an alkyl group, or aryl group.

28. The electrophotographic imaging process of claim 23 wherein Y comprises a bond, nitrogen atom, oxygen atom, sulfur atom, a branched or linear $-(CH_2)_p-$ group where p is an integer between 1 and 10, a cycloalkyl group, or a cyclosiloxyl group.

29. The electrophotographic imaging process of claim 23 wherein the (N,N-disubstituted)arylamine group is a triarylamine group.

30. A charge transport compound having the following formula:

(R-Q)n-Y

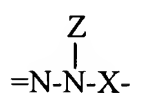
wherein R is a heterocyclic group;

Q comprises an aromatic hydrazone linking group;

Y comprises a bridging group between R-Q- groups; and

n is an integer between 2 and 6, inclusive.

31. The charge transport compound of claim 30 wherein the aromatic hydrazone linking group has the formula:



where Z is an aryl group; and X is a linking group having the formula $-(CH_2)_m-$, branched or linear, where m is an integer between 1 and 20, inclusive, and one or more of the methylene groups is optionally replaced by an oxygen atom, a carbonyl

group, urethane, urea, an ester group, a -NR_6 group, a CHR_7 group, or a CR_8R_9 group where R_6 , R_7, R_8, and R_9 are, independently, H, an alkyl group, or aryl group; and n is an integer between 2 and 6, inclusive.

32. The charge transport compound of claim 30 wherein Y comprises a bond, carbon atom, nitrogen atom, oxygen atom, sulfur atom, a branched or linear -$(CH_2)_p$- group where p is an integer between 1 and 10, an aryl group, a cycloalkyl group, a cyclosiloxyl group, a heterocyclic group, or a CR_{10} group where R_{10} is hydrogen atom, an alkyl group, or aryl group.

33. The charge transport compound of claim 30 wherein Y comprises an aryl group or a heterocyclic group.

34. An organic photoreceptor comprising:

(a) a charge transport compound having the formula

(R-Q)n-Y

wherein R is a heterocyclic group;

Q comprises an aromatic hydrazone linking group;

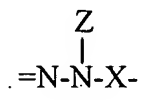
Y comprises a bridging group between R-Q- groups; and

n is an integer between 2 and 6, inclusive;

(b) a charge generating compound; and

(c) an electrically conductive substrate.

35. The organic photoreceptor of claim 34 wherein the aromatic hydrazone linking group has the formula:



where Z is an aryl group; and X is a linking group having the formula -$(CH_2)_m$-, branched or linear, where m is an integer between 1 and 20, inclusive, and one or more of the methylene groups is optionally replaced by an oxygen atom, a carbonyl group, urethane, urea, an ester group, a -NR_6 group, a CHR_7 group, or a CR_8R_9 group

where R_6 , R_7, R_8, and R_9 are, independently, H, an alkyl group, or aryl group; and n is an integer between 2 and 6, inclusive.

36. The organic photoreceptor of claim 34 wherein Y comprises a bond, carbon atom, nitrogen atom, oxygen atom, sulfur atom, a branched or linear $-(CH_2)_p-$ group where p is an integer between 1 and 10, an aryl group, a cycloalkyl group, a cyclosiloxyl group, a heterocyclic group, or a CR_{10} group where R_{10} is hydrogen atom, an alkyl group, or aryl group.

37. The organic photoreceptor of claim 34 wherein Y comprises an aryl group or a heterocyclic group.